

California Environmental Protection Agency



Air Resources Board

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Articles from all issues of the *Emission Inventory Informer* can be found on the World Wide Web at <http://www.arb.ca.gov/emisinv/informer/inform.htm>

Board Approves Inventory

Senate Bill 2174, which was passed by the California Legislature in 1996, requires the Air Resources Board to approve the California emission inventory for criteria pollutants, including emissions from mobile, stationary, area-wide, and nonanthropogenic sources. The law also requires verification of the emission inventory using available scientific data including measured pollution, and an explanation of any discrepancies. The first inventory approval by the Board was required by January 1, 1998. Future inventories must be approved by the Board at least every three years.

The staff recommended the Board approve the statewide, annual average, 1995 Emission Inventory. This is the latest year for which a statewide emission inventory for California is available.

The staff also recommended the Board accept the staff's verification of the inventory and proposed amendments to the staff report which clarified the verification findings.

At its December meeting, the Board approved the 1995 annual average emission inventory and its verification. The Board also approved the proposed amendments to the staff report and it was reprinted as amended.

Contact: Dennis Goodenow
(916) 445-4292
e-mail: dgoodeno@arb.ca.gov

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ARB's Emission Inventory Web Pages

New features have been added to the Emission Inventory Website. The static emission inventory tables have now been replaced with an interactive database-query system. This allows the browser to create custom queries. This option is provided on the emission inventory data page at www.arb.ca.gov/emisinv/emsmain/emsmain.htm. And just below the "Custom" report option, is another new option to create a custom facility search for facility specific criteria pollutant emissions. The "Facility Search" will search in a specified inventory year, geographical area (i.e. air basin, county, district or city), for either a specific SIC, facility ID, or by part of the facility name. The search will produce a single or group of facilities, from which facility specific criteria pollutant data can be obtained. The newly ARB Board approved 1995 California Emission Inventory is also available from this web site.

Recently, a new California Clean Air Act page, a new Emission Inventory Publications page and an enhanced Area Source Methodologies section have been added. These additions are described in other Informer articles in this issue.

Contact: Miki Miyashiro
(916) 327-0027
e-mail: vmiyashi@arb.ca.gov

AWMA Conference on Emission Inventories

Representatives of various industries, states and foreign countries gathered from October 28 to 30 to exchange emission inventory experiences at the 7th annual Air and Waste Management Association (AWMA) conference dealing with emission inventory technologies. The conference, Emission Inventory: Planning for the Future, was held in Research Triangle Park, North Carolina, and attracted over 300 people. The event was co-sponsored by AWMA and the U.S. Environmental Protection Agency. The two prevalent themes emerging at the conference were the heightened attention on emission inventories as a result of the new National Ambient Air Quality Standards (NAAQS) for ozone and PM_{2.5}, and the need for improved emission projections and standardization of SIP progress tracking techniques among state partners.

At the conference, 102 technical papers were presented in the areas of: emission inventory improvement, air quality modeling inventories, emission inventory uncertainty, particulate matter inventories, greenhouse gases, emission factor preparation, emission inventory data management, mobile vehicle emissions, stationary source emissions, emission projections, and toxics emissions. The ARB was represented by EIB staff and the conference offered an excellent forum for sharing recent improvements to ARB's emission estimation methodologies used for estimating PM₁₀ emissions from fugitive dust sources, and the advances made in our emission analysis capabilities resulting from the recent completion of our emission forecasting system redesign project. EIB staff published and presented the following papers: "*California PM₁₀ Emission Inventory Improvement Program*"; "*Development of an Improved Method for Estimating Fugitive PM₁₀ Emissions from Windblown Dust from Agricultural Lands*"; "*New Coding System to Replace the Source Classification Codes*" and "*Redesign of California's Emission Forecasting System (CEFS)*". A poster session and exhibition of relevant instrumentation and government and consultant services complimented the meeting. Copies of ARB's papers are available upon request, or can be downloaded from the ARB's Emission

Inventory Website at <http://www.arb.ca.gov/emisinv/eib.htm>.

Contact: Martin Johnson at (916) 323-3567
e-mail: mjohnson@arb.ca.gov

ARB's Updated Area Source Manual

The most recent version of the "Emission Inventory Procedural Manual, Volume III, Methods for Assessing Area Source Emissions," was published in October 1997 and is now available. The Manual contains the methods used by the Air Resources Board (ARB) staff to estimate emissions of total organic gases (TOG), carbon monoxide (CO), nitrogen oxides (NO_x), sulfur oxides (SO_x), and particulate matter (PM) from area sources in the 1995 Emission Inventory. New and revised methods have been incorporated into this manual. Also, errors have been corrected and missing tables and references have been added for several methods.

The Manual is a living document, which means individual sections will be updated periodically as individual categories are revised or updated or new categories are created. The Manual is available in hard copy or via the internet on the ARB's emission inventory web page. To obtain a hard copy of the Manual, please e-mail eibweb@arb.ca.gov or call (916) 322-6271. The Manual can also be obtained by accessing the ARB's emission inventory web page at www.arb.ca.gov/emisinv/eib.htm. The Area Source web pages also include a summary of each area source category method as well as the full methodology. The full methodologies are in Adobe Acrobat format.

Making the Manual available on ARB's website is the first step in developing a clearinghouse for area source methods. A future effort will be made to collect and incorporate districts' area source methods onto this website. Sharing these methods with all districts will lead to the improvement of the area source inventory.

Contact: Andy Delao
(916) 324-7169
e-mail: adelao@arb.ca.gov



Quote - Unquote

"We do precision guesswork."

-Notice posted at the Jet Propulsion Laboratories in Pasadena, California, in the mid-1960s.



CCAA Fee Regulation

In October, Governor Wilson signed AB 1583 which extended the California Clean Air Act (CCAA) nonvehicular source fee program for an additional two years. The CCAA fee program assesses an emission fee on nonvehicular sources which emit 500 tons or more per year of any nonattainment pollutant or precursor. The total amount of funds collected by these fees, excluding district administrative costs, may not exceed \$3,000,000 per year. The CCAA established this fee program beginning with fiscal year 1989-90. The CCAA also contained a sunset provision which terminated this fee at the end of fiscal year 1996-97. AB 1583 reinstated and extended the CCAA fee program for fiscal years 1997-98 and 1998-99.

At its January 1998 meeting, the Air Resources Board adopted the staff proposal to make some structural changes in the CCAA fee regulation from previous years of the program. First, the regulation covers both fiscal years authorized by AB 1583. The regulation is also structured to accommodate any future extensions. Second, the fee regulation contains the formula for calculating the fees rather than the dollar amount to be collected by each district. The fee calculation formula is the same as that used in the previous eight years of the program.

The fees for fiscal year 1997-98 will collect \$3,000,000 and be based on 1995 emissions. Based on emission data collected so far, the cost per ton fee for facilities subject to this fee program will be approximately \$24.00 per ton.

The ARB staff held a consultation meeting on December 10th to provide facilities and districts an opportunity to comment on the fee program. Because of the compressed time frame for the development of the proposed fee regulation, the ARB staff has personally contacted each air pollution control district and each facility subject to the fee regulation to ensure that all affected parties have received all of the materials related to the fee regulation and to respond to any questions about the proposed regulation.

Invoices for fiscal year 1997-98 fees will be sent to the districts once the regulation has been approved by the State's Office of Administrative Law, most likely in mid to late March.

Contact: Cheryl Taylor or Don Rake
 (916) 324-7168 (916) 322-7304
e-mail: cataylor@arb.ca.gov drake@arb.ca.gov

California Air Quality Data Available on CD-ROM

The Air Quality Data Branch of the Air Resources Board now has available a CD-ROM (CD) with 17 years of air quality data. This is the first of two CD's being released this Winter. Both CD's contain 17 years of Criteria Pollutant air quality data (1980-1996) and 7 years of Toxics air quality data. Both CD's contain raw hourly or daily data, and summarized daily and annual data.

The data on the first CD are stored in Voyager *.voy files and are easily displayed using the Voyager data visualization software, also included on the CD. The CD also contains a startup program and 18 Voyager workbooks (*.wkb) to make it easier for users to locate and use data of interest. A tutorial on Voyager is also included. This CD also contains annual summary data in DBF files and in an ACCESS database. **Request CD # TSD-97-007-CD.**

The second CD should be available by mid-February and will contain the same basic data that is on the first CD, but will store the data in ASCII files and other forms used by analysts that process their own data. On this CD, daily and annual data will also be available in DBF files and annual data will be available in an ACCESS database. **Request CD # TSD-97-008-CD.**

On both CD's, the ACCESS databases include a number of standard queries and reports of the annual summary data that provide convenient access to commonly requested information. The DBF files of annual data on either CD may be easily read into commonly used spreadsheet programs, such as Quattro Pro or Excel.

There is no charge for the CDs.

If you would like to obtain a copy of either CD, please indicate by number which CD you need and provide your name and mailing address using one of the following methods of contact:

1. Send request via e-mail to aqdc@arb.ca.gov, or
2. Call the Air Quality Data Branch at
 (916)322-6076, or
3. Send your request to:

Air Quality Data Branch, CD-ROM
Air Resources Board
P.O. Box 2815
Sacramento, CA 95812

ARB Approves Air Toxics “Hot Spots” Fee Regulation for Fiscal Year 1997-98

On Thursday, November 13, 1997, Emission Inventory Branch (EIB) staff presented proposed amendments to the Air Toxics “Hot Spots” Fee Regulation for fiscal year 1997-98 Fee Regulation to the Air Resources Board. The Board approved the proposed amendments including modifications presented by staff at the meeting. The Air Resources Board passed the proposed amendments with a vote of 9-1.

The Fee Regulation approved by the Board contains a final State Program budget of \$1.35 million. In addition to the amendments proposed in the August, 1997, staff report, EIB staff proposed an additional \$140,000 reduction in the State’s Program budget at the Board hearing. This represents a total reduction of \$586,000, or a 30 percent reduction from fiscal year 1996-97 and a 74 percent reduction in State costs since fiscal year 1993-94. Staff also proposed an increase from \$15 to \$25 in the State Program fee for industrywide facilities. There were also slight changes to the numbers of facilities in the Program’s facility program categories. These changes were based on the information collected in September and October from the districts to verify the facility program data submitted in July, 1997.

The Fee Regulation exempts an additional 1,000 facilities this year from paying any State Program fees

due to low toxics risks. Combined with the 1,300 facilities exempted in fiscal year 1996-97, a total of 2,300 facilities now pay no State “Hot Spots” Program fee. However, even with the reductions in the State Program costs, the State fee per facility rose due to the large reduction in fee paying facilities. Due to facilities’ continued risk reduction efforts, the number of facilities in the Program paying fees is expected to continue to decrease.

On Tuesday, December 16, 1997, Emission Inventory Branch (EIB) staff initiated a 15-day public comment period for the Air Toxics “Hot Spots” Fee Regulation for fiscal year 1997-98 modified text. The modifications the public is allowed to comment on were those set forth at the November 13, 1997, public hearing, and include additional modifications made to reflect corrections to the underlying data supporting the original proposal.

The 15-day public comment period ended on Wednesday, December 31, 1997. There was one comment submitted. EIB staff continues to work on the regulatory package for the “Hot Spots” Fee Regulation for fiscal year 1997-98. After review and approval by the Executive Officer, it will be submitted to the Office of Administrative Law (OAL). OAL has 30 working days to review the staff’s proposed amendments.

Contact: Kirk Rosenkranz
(916) 322-7673
e-mail: krosenkr@arb.ca.gov

EIIP Electronic Data Interchange Prototype Demonstration

ARB Emission Inventory staff, along with the Emission Inventory Improvement Program's Data Management Committee, is in the process of demonstrating a prototype electronic data interchange system for emission inventory data. The data format that is being used for this system is based on the American National Standards Institute(ANSI) X12 standard for data exchange that is already used widely by such industries as insurance, finance, and commercial purchasing. Specifically, the ANSI X12 "841" transaction set, which is normally used for transfer of Technical Specifications, has been adapted for use by emission inventory data. The prototype demonstration is emphasizing the transfer of emission inventory data that is most useful for modelling purposes.

Along with the ARB, other participants in the Prototype demonstration include the Pennsylvania and the US EPA Office of Air Quality and Standards. The prototype will demonstrate the transfer of data from the two states involved to the US EPA. The prototype should be completed by Spring, 1998.

Although it is an industry standard format, the X12 data exchange format being used for the prototype is fairly complicated and requires both trading partners to develop software to generate and read data files in an intermediate data format. This intermediate format is in turn read by specialized X12 translator software. For the prototype, the translator being used is Harbinger STX, on loan from Harbinger. After translation, the translator software then transmits the data to the receiving EPA computer using a modem. The EPA must then back translate the X12 data into the intermediate data format, and then read this data into the receiving database.

Because of the specialized requirements of the X12 format, and the requirements that trading partners write software to generate the necessary data files and purchase an X12 translator, the X12 format is most efficient when very large quantities of data are being transferred, when frequent data exchanges are necessary, or when an extraordinary amount of data quality is required.

More information on this project can be obtained at the EIIP web site:

http://www.epa.gov/ttn/chief/eiip/eiip_dm.htm

Contact: Andy Alexis
(916)323-1085
e-mail: aalexis@arb.ca.gov

EIIP Future Direction Meetings

On December 2, 3, and 4, the Emission Inventory Improvement Program (EIIP) steering committee and co-chairs met in Research Triangle Park, NC, to discuss goals, objectives, and future directions. The EIIP is a joint effort of STAPPA/ALAPCO and U.S. EPA staffs to identify needed improvements to the emission inventory, develop data estimation methodologies, and design data transfer procedures to move the emission inventory program into the next century. The group concluded the meetings agreeing to continue to develop data methodologies for the O3, and CO categories, and to study the state of the science of the PM fine categories, with the intent of developing improvements for PM fine in the next few years. Also, the group agreed to investigate the possibility of developing SIP tracking systems and to seek improvement in emission forecasting systems.

Contact: Dennis Goodenow
(916) 445-4292
e-mail: dgoodeno@arb.ca.gov

The *Emission Inventory Informer* is published by the Emission Inventory Branch, Technical Support Division, California Air Resources Board, with occasional contributions from other staff at the ARB. Inquiries should be addressed to:

Air Resources Board
Technical Support Division
P. O. Box 2815
Sacramento, CA 95812
Attention: Don Drake
(916) 322-7304; e-mail: drake@arb.ca.gov
FAX (916) 323-1075

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